

# The Soft Video Switch

The Soft Video Switch is an automatic version of the Switchplate assembly. It will automatically switch to 80 columns when any character is sent to the Videoterm. If any color graphics mode is active, the Soft Video Switch will automatically switch to the 40 column video signal. When the graphics mode is deselected, the Soft Video Switch returns to the previous mode.

### Installation and checkout of the Soft Video Switch.

- 1) Turn the Apple ][ off and remove the cover.
- 2) Locate the I.C. chip F-14 on the motherboard. It is the second chip down from the game I/O socket. The chip is either a 9334 or a 74LS259. Carefully remove this chip with an IC puller or a small flat bladed screwdriver. Set this chip aside.
- 3) Plug the Soft Video Switch into the F-14 socket. The five prong molex connector should face the keyboard. Be sure that all of the pins go into the socket.
- 4) Place the chip that you removed from the F-14 socket into the socket on the Soft Video Switch. The notched end should point toward the keyboard (the same direction as before).
- 5) Plug the three wire cable from the Soft Video Switch onto the four prong video connector on the Apple ][ motherboard. The cable should be oriented so that the two empty holes at the top of the plug are to the right of the Apple ][ (i.e. away from the power supply). Please note the four prong video connector on the Soft Video Switch. This connector is a direct replacement of the video connector on 'he motherboard (for RF modulators).
- 6) Plug the two wire cable from the Soft Video Switch onto the five pinvideo connector on the Videoterm.
- 7) Plug the cable supplied with the Videoterm cato the five prong video connector on the Soft Video Switch. This calle should be connected to a monochromatic video monitor.
- 8) Turn your Apple on. If the speaker does not 'p upon power up; turn your Apple off and re-check your installation. ay particular attention to step 4.

9) If you have an Autostart ROM, Apple Language Card, or an Apple ][ plus, goto step 10. Otherwise, your display will probably be blank. If so type the following:

#### CO58 (CR)

10) Adjust the 40 column video level adjustment (a little turn dial on the Soft Video Switch) so that you can see the 40 column screen. You should adjust this to be the same strength as the Videoterm's output signal.

# Soft Video Switch Theory of Operation.

The Soft Video Switch is controlled by two conditions: the state of annunciator zero and the color killer signal. If the color killer is off, the Apple ][ is in its color graphics mode and the Soft Video Switch will always display 40 columns (i.e. graphics). If the color killer is on, the Soft Video Switch follows the state of annunciator zero (set to off by Autostart on power up and reset). If the annunciator is off, the Soft Video Switch displays 40 columns. If the annunciator is on, 80 columns is displayed. The firmware on the Videoterm sets annunciator zero on as EACH character is output. To turn annuciator zero on, a memory reference to \$CO58 (-16296) must be made. To turn it off, \$CO59 (-16295).

### Use of the Soft Video Switch.

To enter 80 columns, type:

### PR#3 (CR)

To go back to 40 columns, hit Reset or type a control Z immediately followed by a "1". A control X should be used to prevent an error message in immediate mode. A return is not required.

#### Shift Wire Mod.

To install the shift wire mod, connect a wire from pin one of chip H14 to the second pin from the right (farthest away from the power supply) of the keyboard connector comb on the encoder board of the keyboard.

Control A now becomes a shift lock/unlock and the shift keys operate normally. With the shift wire mod, these characters are available:

Character	Mode	Description
Left Bracket	Shift lock	Control K
Right Bracket	Shift lock	Shift M
Left Brace	Shift unlock	Control K
Right Brace	Shift unlock	Shift 0 (zero)

